IN THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the above-referenced application.

1-8. (Canceled).

9. (Currently Amended) A method of forming a light emitting device, the method comprising:

forming a first semiconductor layer of a first conductivity type and having a first surface;

forming an active region over the first semiconductor layer, the active region including at least two quantum well layers separated by a barrier layer, wherein one of a quantum well layer and the barrier layer is a graded layer formed from a III-Nitride semiconductor alloy of $In_xAl_yGa_{1-x-y}N$ where $0 \leq x \leq 1$, $0 \leq y \leq 1$, $x + y \leq 1$, the graded layer having a composition graded in a direction substantially perpendicular to the first surface of the first semiconductor layer; and

forming a third semiconductor layer of a second conductivity type over the active region.

10. (Previously Presented) The method of Claim 9, wherein the graded layer has a wurtzite crystal structure.

11. (Previously Presented) The method of Claim 9, further comprising grading the composition of the III-Nitride semiconductor alloy in the graded layer asymmetrically.

12. (Previously Presented) The method of Claim 9, further comprising grading the composition of the III-Nitride semiconductor alloy in the graded layer to reduce the effect of a piezoelectric field in the active region.

13. (Previously Presented) The method of Claim 9, further comprising grading a mole fraction of the III-Nitride semiconductor alloy in the graded layer linearly.

14. (Canceled).

15. (Previously Presented) The method of Claim 14, further comprising grading the mole fraction of indium in the graded layer.

16. (Previously Presented) The method of Claim 14, further comprising grading the mole fraction of aluminum in the graded layer.

17. (Previously Presented) The method of Claim 9, wherein the active region is formed directly on the first semiconductor layer.

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18-24. (Withdrawn).

25. (Currently Amended) A method of forming a light emitting device, the method comprising:

forming a first semiconductor layer of a first conductivity type having a first surface;

forming an active region overlying the first semiconductor layer, the active region including a plurality of quantum well layers separated by at least one barrier layer, the barrier layer formed from a III-Nitride semiconductor alloy of $In_xAl_yGa_{1-x-y}N$ where $0 \leq x \leq 1$, $0 \leq y \leq 1$, $x + y \leq 1$, the barrier layer having an indium mole fraction graded in a direction substantially perpendicular to the first surface of the first semiconductor layer; and

forming another semiconductor layer of a second conductivity type overlying the active region.

26. (Original) The method of Claim 25, further comprising forming the barrier layer in a wurtzite crystal structure.

27. (Original) The method of Claim 25, further comprising grading the indium mole fraction of the III-Nitride semiconductor alloy asymmetrically.

28. (Original) The method of Claim 25, further comprising grading the indium mole fraction of the III-Nitride semiconductor alloy to reduce an effect of a piezoelectric field in the active region.

29. (Original) The method of Claim 25, further comprising grading the indium mole fraction of the III-Nitride semiconductor alloy linearly.

30. (Canceled).

31. (Original) The method of Claim 25, wherein the active region includes a plurality of barrier layers each formed from a III-Nitride semiconductor alloy having an indium mole fraction graded in a direction substantially perpendicular to the first surface of the first semiconductor layer.

32. (Previously Presented) The method of Claim 25, further comprising grading an indium mole fraction of at least one of the plurality of quantum well layers.

33. (New) The method of Claim 9 wherein the graded layer has a graded composition of a first element, wherein a change in composition of the first element in the graded layer is 1% per angstrom across a thickness of the graded layer.

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